Thompson Falls Hydroelectric Project
Warming Hut
On east slope of Main Island
About 35 feet south-southwest of Main Channel Dam
Thompson Falls
Sanders County
Montana

HAER No. MT-90-E

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Rocky Mountain System Support Office
National Park Service
P.O. Box 25287
Denver, Colorado 80225-0287

HISTORIC AMERICAN ENGINEERING RECORD
THOMPSON FALLS HYDROELECTRIC PROJECT,
WARMING HUT

I. INTRODUCTION HAER No. MT-90-E

Location:	The warming hut is at the Thompson Falls Hydroelectric Projects in the small city of Thompson Falls, Sanders County, Montana. It stands on the east slope of the main or eastern island between the project's supply reservoir and the main channel of the Clark Fork River. The west abutment of the project's main channel dam lies about 35 feet above (north-northeast) the warming hut.
Quad:	Thompson Falls, MT
UTM:	Zone 11; 623840 Easting; 5272246 Northing (NAD 83)
Date of Construction:	ca. 1916
Present Owner:	Pennsylvania Power and Light-Montana (PPL-Montana) 45 Basin Creek Rd., Butte, Montana
Present Use:	Storage
Significance:	The warming hut contributes to the significance of the historic district at the Thompson Falls Hydroelectric Project. It is representative of attempts by early-twentieth-century hydroelectric companies to provide for the comfort and safety of their work force. The warming hut also is a well-preserved example of vernacular industrial architecture of period. Characteristics of that nature displayed by the building include its simple massing, construction materials of local stone, and high quality of workmanship.
Historian:	Renewable Technologies, Inc. 8 W. Park, Suite 313 Butte, Montana 59701 December 2008

II. HISTORICAL INFORMATION

The warming hut is on the east slope of the main island at a site slightly downstream and higher in elevation than the west abutment of the project's main channel dam (Figure 1). Although not fully confirmed by project research, it seems likely that the Thompson Falls Power Company added the warming hut to the stock of support facilities at Thompson Falls not too long after the hydroelectric plant first went on-line, or in about 1916. It is also probable that the building was constructed from plans and specifications prepared by the Western Office of the Charles T. Main Company, the engineering consulting firm that prepared the designs for the Thompson Falls powerhouse, two dams and other major structural components. C.T Main likewise oversaw project construction. As it did for the powerhouse and structural components of a few other buildings and structures at Thompson Falls, C.T. Main relied on the natural outcropping of stone (a gray slate) at the falls site for use in the warming hut's design and construction.[1]

Thompson Falls Power Company primarily intended the warming hut as a shelter where workers engaged in operational or maintenance activities at the main channel dam could seek temporary relief from the bitter cold of a typical Thompson Falls winter or other inclement weather conditions. Site preparation for the building's construction had been a somewhat formidable task, requiring dynamite blasts into the large outcropping of rock into which the dam's west abutment had been tied. Another important component of the warming hut's construction entailed improving pedestrian access down the comparatively steep island slope to the dam. A rock-walled path was developed toward this end. The path passed directly in front of the warming hut along its route.

III. PHYSICAL DISCRIPTION

The warming hut is a stone masonry building measuring 12'6" east-west by 9' north-south. The front of the building faces east toward the river, while the back (west) wall sits directly against island's rocky hillside. The warming hut rests on a concrete foundation and has a hip roof.

The warming hut's stonework consists of cut blocks of local gray slate, each 20" wide but of variable lengths and heights. Although unverified, the blocks may have been fashioned from debris dislodged from the blasting of rock to make room for the building's construction. They are laid up with a cement mortar. Mortar joints average about 1-1½" wide.

Fenestration on the front elevation is comprised of a central entryway (2'11" wide by 6"8" tall) flanked by long narrow window opening, one each side (2'5" wide by 4'8" tall). A flat concrete lintel tops each of the three openings, and window openings both have concrete lug sills. The entryway retains its original wood door, a paneled unit with two recessed vertical panels over one recessed square panel. The door swings to the outside on two pinned hinges. Original four-over-four light, double hung windows with wood sashes remain in the window openings (one each). They are

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[1] Cecil H. Kirk, "History of Montana Power," ca. 1969, n.d., vol. II: chapter 9, pp. 12-13, typed manuscript, on file, Montana Historical Society Research Center, Helena.

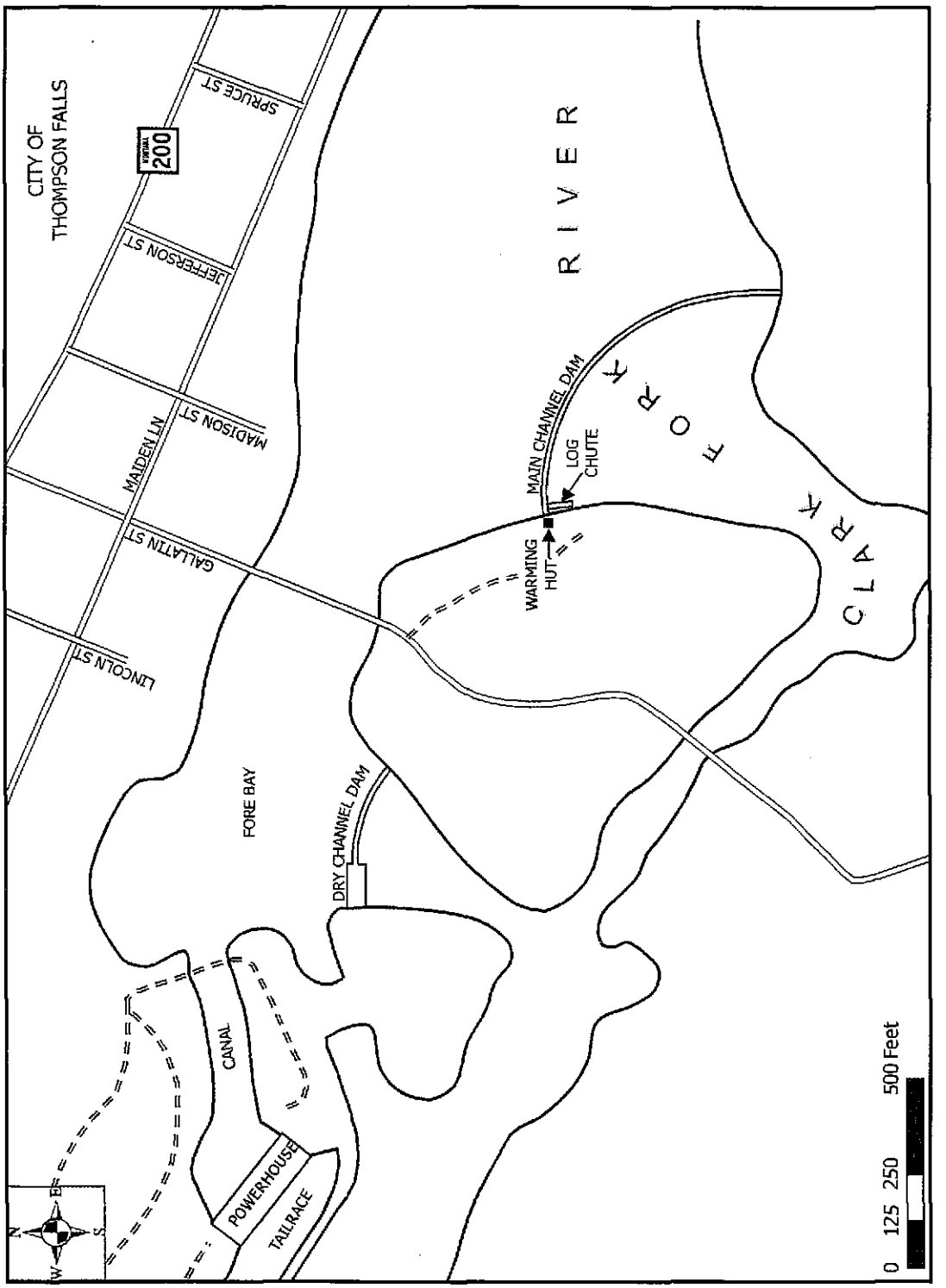

Figure 1. Map of Thompson Falls Hydroelectric Project, 2008.

set deep in the openings behind mesh screens made of ¼-inch thick metal strips. The building's other three walls are without doors or windows.

The warming hut's hip roof has a long central ridge. It is constructed of 2x6 rafters and purlins, board decking, and corrugated metal roofing, possibly tin. All of the ridgelines have metal caps or coping and there are ball finials on the ends of the central ridge (one each). The metal roofing and caps display an eroded coat of green paint. The open eaves of the roof overhang the top of the walls by about 3' and feature exposed rafter and purlin tails. Fascia boards cover the ends of the tails.

The rock-walled path begins about 35-40' below the end of a former road turned trail on the east side of the main island. From there it extends north-northeast across and down the island's steep east slope. The path encounters the warming hut at about its 30-foot mark, and the main channel dam's west abutment is another 35' below that. The walkway and its rock walls measure 65' feet long overall.

The upper (south) end of the path measures 15' wide and is lined on both sides by rock walls about 2' tall and 10" wide each. As the path descends from there, its west or "hillside" wall gradually curves in toward the south or "riverside" wall. By the time that it reaches the warming hut, the path is 6' wide and its walls are about 3"6' tall each. The front wall of the warming hut is flush with the path's west wall. About 3' below the warming hut, the path transitions into a staircase comprised of 11 concrete steps. The main channel dam's west abutment is at the bottom of the staircase.

The walls of the path are made of irregular-shaped slabs of slate laid up with some but not much cement mortar. Parts of both the west and east walls appear to have been rebuilt or repaired since construction. Replacement sections of wall display rounded river cobbles instead of slate slabs. About the lower (northern) 45' feet of the path's east wall is built on the top of a retaining wall made of irregular-shaped, dry-laid slabs of slate. The retain wall is about 10' to 12' tall in front of the warming house.

IV. FUTURE OF THE PROPERTY

PPL-Montana plans to remove or otherwise impact the warming hut as part of a project to install a fish ladder at the west end of the main channel dam. In order to address the impact, the company has sponsored recording the building to HAER standards.

V. BIBLIOGRAPHY

Kirk, Cecil H. "History of Montana Power." ca. 1969. Volume II. Typed manuscript on file, Montana State Historical Research Center, Helena.